



**USAF ESC/NI**

# ***Joint Interface Control Officer (JICO) Support System (JSS)***



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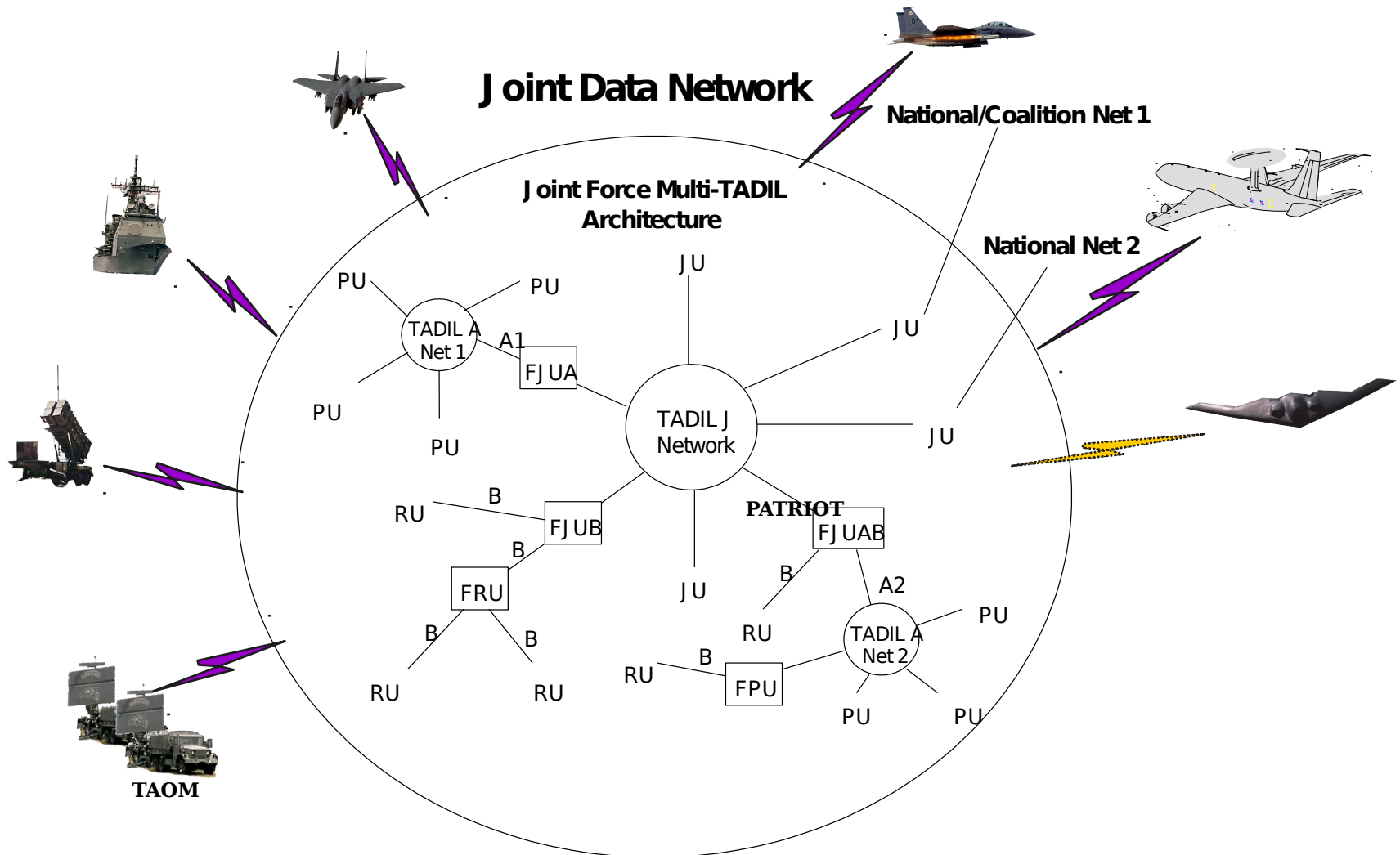


# Briefing Overview

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- What is the Joint Interface Control Officer Support System?
- Who are our customers, advocates, and program stakeholders?
- How is the acquisition program structured?
- What is the government's acquisition strategy?
- What are our major directives and linkage to other programs?
- What is our timeline for industry development and product fielding?
- What is our investment and the potential business base?
  - Projected cost and investment range
  - Number of systems we intend to produce (US)
  - Potential Foreign Market

# JSS Tools Enable Management of Complex Multi Link Network Architectures



**Reference: CJCSM 3115.01**



# What is the JICO Support System

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- A Joint Interface Control Officer is responsible for planning, organizing, managing, monitoring, and controlling data and voice over tactical communications systems.
- Communication links include Link-16, Link-11, EPLRS, UHF and EHF Satellite, dedicated land line circuits, DoD IP infrastructure Networks, and future tactical data systems
- A JICO is the Joint Interface Control Officer, a military officer and Staff assigned to a operational unit (deployed) whose responsibilities include planning, establishing, and operating the tactical communications In a local or wide area operation theater



# JSS Key Performance Parameters

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Derived from  
Theater Air and Missile Defense  
Capstone Requirements Document

- (Information Exchange) Interoperability
- Message Set Interoperability
- Communications Interoperability
- Training
- Automated access to search driven information
- Information Integrity
- Quality of Service
- Transport Element Status
- Data Interoperability
- Network Management
- Information Assurance Defense
- Survival Information Dissemination



The diagram illustrates the architecture of the JICO SUPPORT SYSTEM (JSS), which is a central system for Joint Intelligence Coordination and Operations. The JSS is represented by a blue trapezoid in the center, labeled "JICO SUPPORT SYSTEM (JSS)".

**Inputs and Connections:**

- Multi-TDL Network (MTN):** A blue octagon at the top center, connected to the JSS by a thick red arrow pointing down, labeled "Feedback".
- Air\*, Maritime\*, Ground\*:** Three white rectangular boxes at the top left, connected to the MTN by red lightning bolts.
- Gateways:** A white rectangular box at the top right, connected to the MTN by a red lightning bolt.
- Intelligence (IBS) and GDN (VME):** Two white rectangular boxes at the top right, connected to the Gateways by red lightning bolts.
- JDR\*:** A blue cylinder on the left, connected to the JSS by a double-headed red arrow labeled "Planning".
- JFC/Planning:** A white rectangular box at the bottom left, connected to the JSS by a red arrow pointing up.
- Common Tactical Picture (CTP):** A white rectangular box at the bottom center, connected to the JSS by a red arrow pointing up.

**Output:**

- A thick red arrow points from the JSS to the right, labeled "Output".

**Legend:**

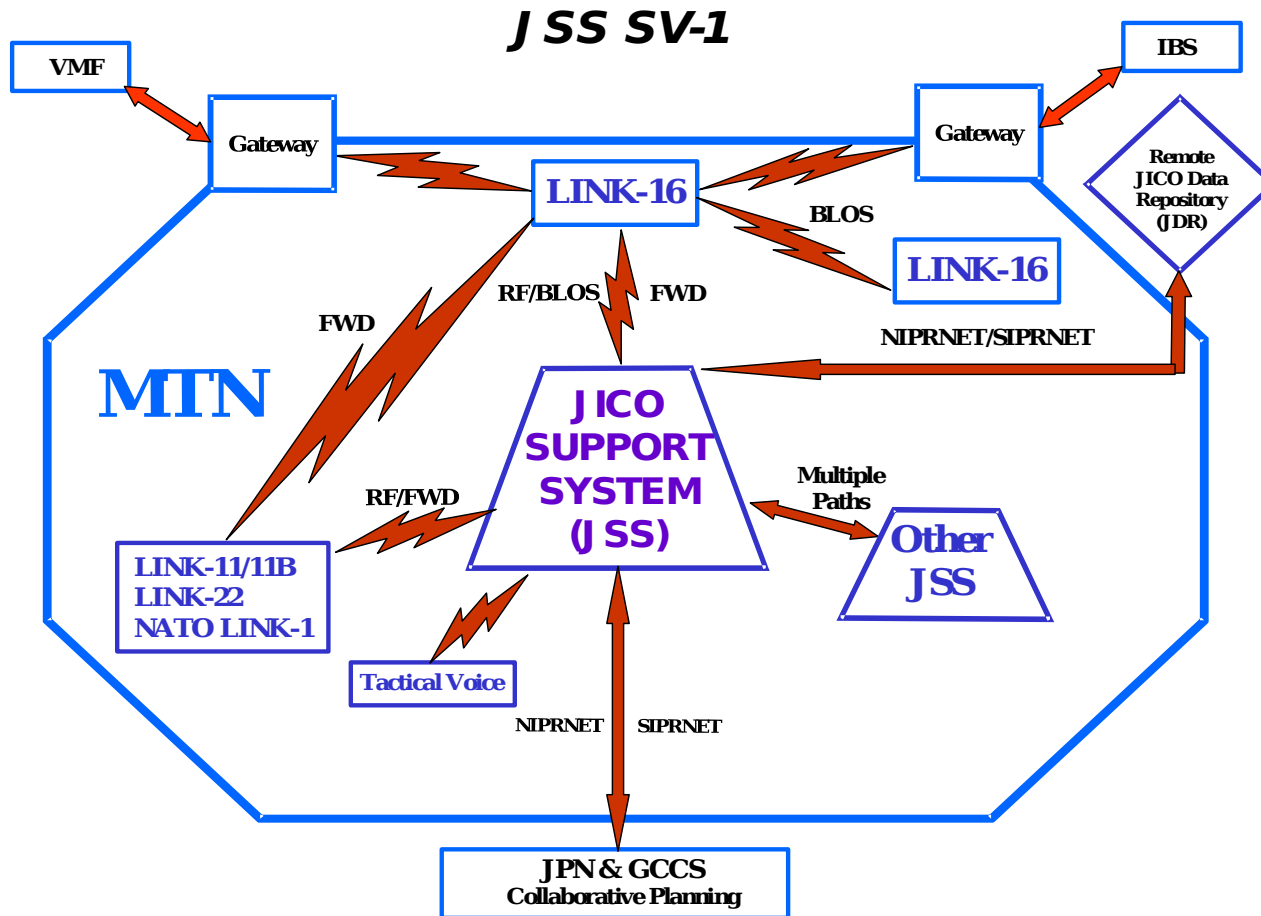
- \* Includes Coalition

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# JSS System View (SV-1)

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# Who are our customers and stakeholders

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- Users
  - Forces Command (Atlanta)
  - Air Force
    - Numbered Air Forces in theaters with Air Operations Centers
  - Army
    - Brigade level Tactical Operations Centers
  - Marine Corps
    - Air Defense Units
  - Navy
    - CINCPACFLT and CINLANTFLT (Carriers, certain Cruisers, possibly some Amphibious ships)





# Who are our customers and stakeholders

**USAF ESC/NI**

- Program Advocates
  - Joint Forces Command (J61)
  - Assistant Secretary of Defense for Networks and Information Integration
  - Joint Single Integrated Air Picture (SIAP) Systems Engineering Organization (JSSEO)
  - Joint Theater Air Missile Defense Organization (JCS/J8)
  - Air Force (AF/XOR, SAF/AQIZ, AFC2ISRC, ACC/DOY)
  - Army (G3, PEO(ASMD))
  - Marine Corps (HQMC, MARCORSYSCOM)
  - Navy (OPNAV N61, NETWARCOM)



# Who are our customers and stakeholders

**USAF ESC/NI**

- Program Development and Integration
  - Air Force: Electronic Systems Center (Hanscom)
  - Army: PEO(ASMD) (Huntsville)
  - Marine Corps: MARCORSYSCOM (Quantico)
  - Navy: PEO(C4I & Space) (San Diego)



# How is the acquisition program structured?

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- JSS is an ACAT-III Joint Program, with multi-service investment in developing, production, and sustaining the JSS hardware and software
- Air Force is designated the lead acquisition agency for the system acquisition, assigned to Electronic Systems Center
- Program funding is based on service budgets
  - For the first 2 years (FY04-05), Navy and Air Force are funding the program with Army and Marine Corps participation in development support
  - For the remaining years (FY06 and out), Army and Marine Corps become funded participants
- The government program office located at ESC
  - PEO Program
  - Source Selection Authority is ESC/NI (Mr. Matt Mleziva)
  - ESC/NI3 (Lt Col Anita Latin) is the designated SPO Director
  - Program Manager is CDR Matt Kercher
- Services will assign people to Hanscom or support the acquisition from their home sites
- We are pursuing a single contract through block 3 (notional, not an approved strategy)



# What will We be Buying?

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- The Operational Requirements Document describes the JSS as 2 “adaptive capability packages”
  - Common Core Capability
    - “in which the operational facility’s (OPFAC) communications systems are used to the maximum extent possible” and “will include only that hardware, software, and communications interfaces necessary to meet the requirements” in the ORD
  - Full Expeditionary Capability
    - “a deployable, self-contained” system
    - “The JSS (CCC) in a ruggedized, transportable configuration with all associated communications equipment required to support JICO operations (data and voice). JSS (FEC) is ideal for a combatant command or Service requiring a rapidly deployable JICO capability able to set up and operate in immature or austere environments.”
- Additionally, the system requires a Remote Data Repository to maintain the superset of data required by the worldwide JSS sites
  - Infrastructure servers reachable over SIPRNet or other IP data paths



# What is our Acquisition Strategy?\*

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- This is a notional strategy which has not been approved by the acquisition strategy panel (ASP)
- Competitively awarded contract spanning multiple year for development, purchase of hardware and software suites, integration support, and optionally sustainment
- Incremental development and fielding strategy, revolving around a notional 18-month block cycle for capability improvements
- Anticipating significant use of
  - COTS and GOTS modular hardware solutions
  - Mixture of COTS, GOTS, NDI and other software systems
- RFP is being developed by the Air Force and Navy acquisition team, emphasizing capability delivery



# Acquisition Strategy Inputs Being Solicited From Industry

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- Contract Types being considered
  - Cost Plus contract for development
  - Cost Plus or Fixed Price production
  - Time and Materials or Cost Plus for Integration Engineering Support
  - TBD for Sustainment (through block 3)
- Block Structure is notional and not fixed
  - We are seeking Industry response on modifying the block structure and content to achieve lower cost, shorter delivery schedules, and faster delivery of overall capability to the field
  - The Draft TRD lists 2+ Blocks, but these capability delivery requirements can be altered and traded for cost or performance considerations
  - Innovations sought to achieving maximum capability at the lowest overall cost



# What are our Major Program Directives and Linkages?

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- Global Information Grid CAPSTONE Requirements Document (CRD)
- Theater Air and Missile Defense CRD
- Air Force Command and Control Enterprise Reference Architecture (C2ERA)
- Navy Open Architecture
- Joint Tactical Radio System, Service's Migration Plans
- OSD/DISA Network Centric Enterprise Services program
- DoD IPv6 Policy Memorandum (9 June 2003)
- DoDD 8500.1 Information Assurance Policy
- Others (to be explicitly cited in the TRD and contract)



# Other Programs to Which We Are Closely Aligned

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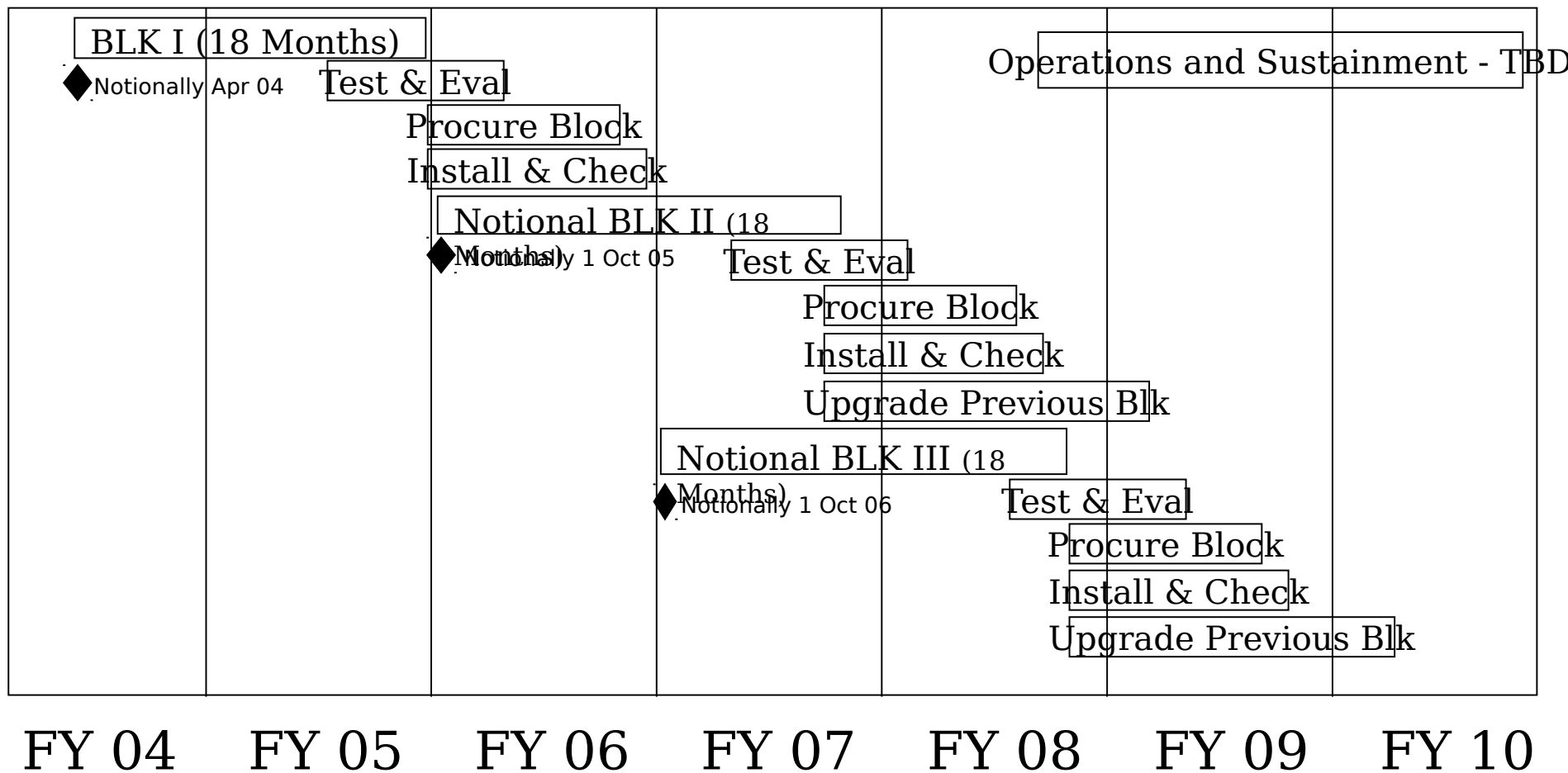
- Common Link Integration Processing
- JTRS Clusters 1, 3, and 4
- Joint Network Management System
- Multi-Functional Information Distribution System [LVT(1), LVT(2), and MIDS-JTRS]





# Notional – Development, Test, and Production Schedule

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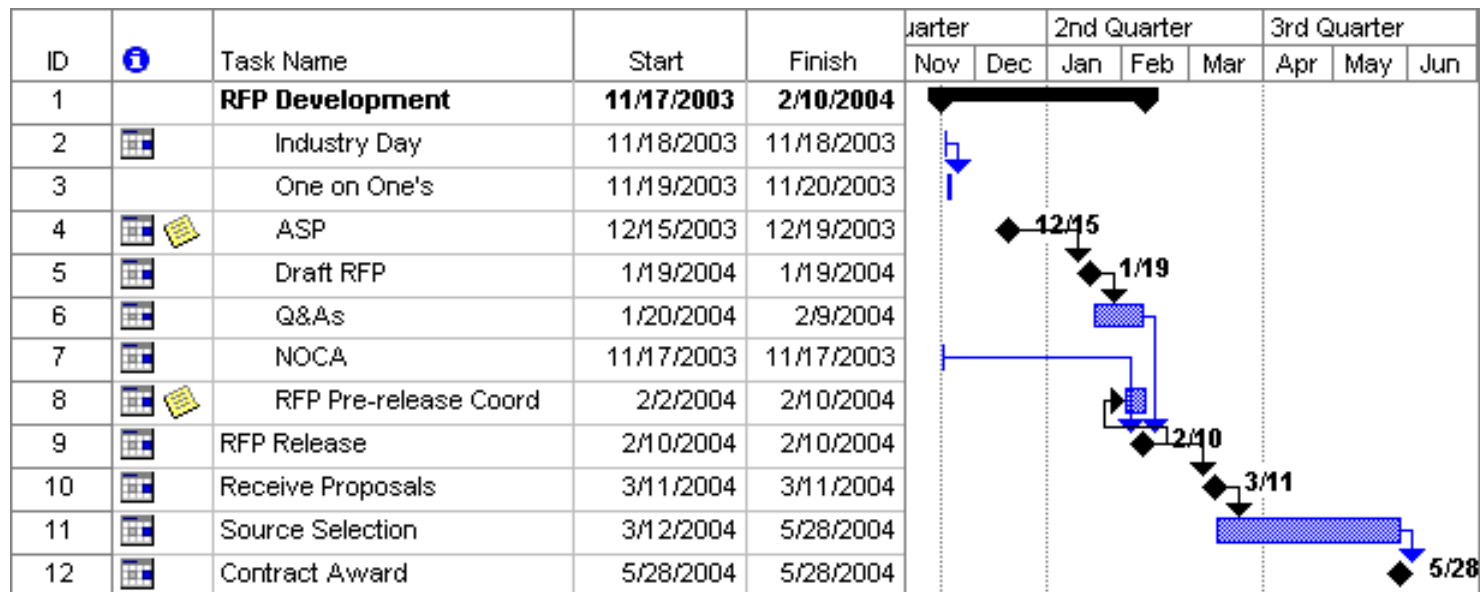


Note: Block Schedules are notional, depending on proposed development schedules  
Sustainment support through block 3 on the same contract as development



# Notional Timeline to Contract Award

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- Notional schedule is for information only and is not a solicitation. Companies should monitor the JSS HERBB site for updated information on this plan.



# Notional Program Production Schedule

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| Service                                  | CCC * | FEC |
|--|-------|-----|
| USAF                                     | 27    |     |
| USN                                      | 23    |     |
| USA                                      | 12    |     |
| USMC                                     | 16    |     |
| Joint                                    |       | 4   |
| * Includes one rotoble spare per service |       |     |



# Notional Program Installations

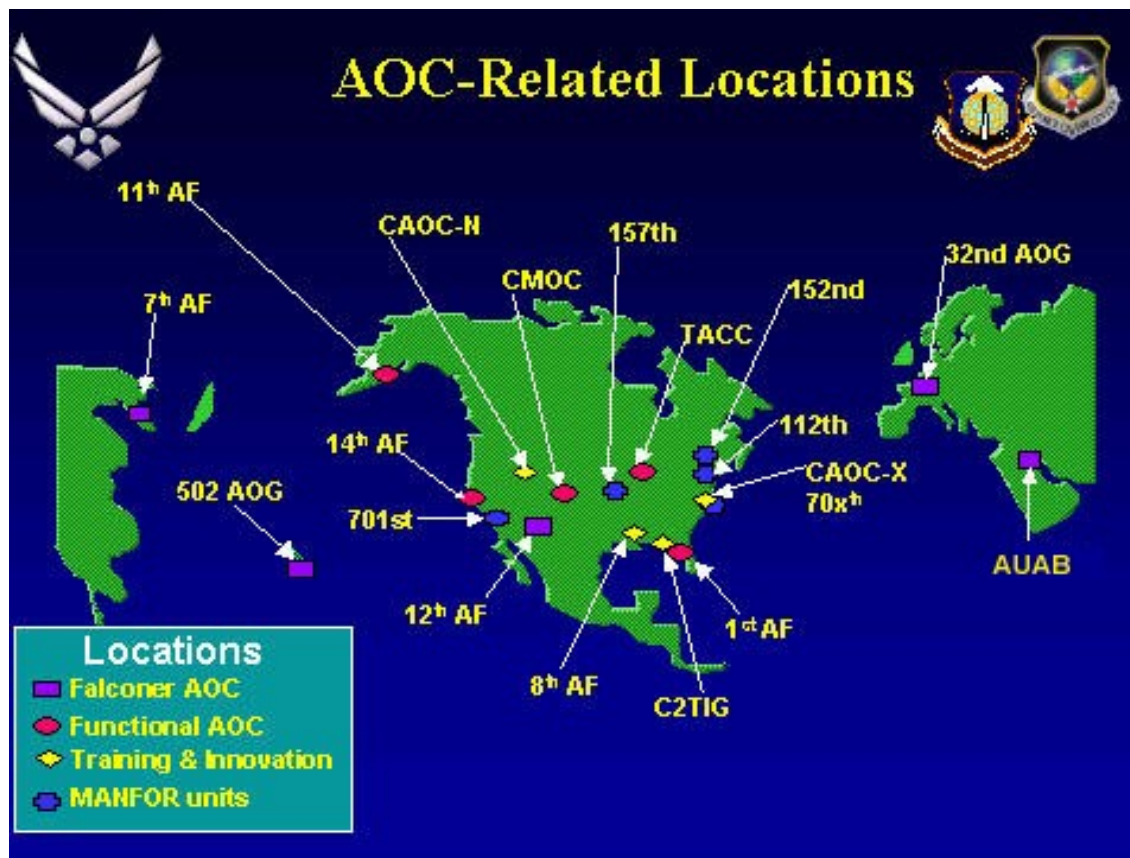
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- USAF: 27 CCCs
  - 8 ACC AOC, 8 ACC CRC/BCC/ADS, 2 USAFE AOC, 2 USAFE CRC/BCC, 3 PACAF AOC, 1 PACAF CRC/BCC, 2 training support, and 1 spare
- USN: 23 CCCs
  - 12 Carriers, 5 Command Ships, 3 NCTSI detachments, 2 FCTCs, and 1 spare
- USA: 12 CCCs
  - 2 AAMDC, 6 ADA Brigades, 1 Drive Up Simulated Test bed (DUST), 1 Warrior University [ADA schoolhouse], 1 Software Engineering Directorate [SED], and 1 spare
- USMC: 16 CCCs
  - 4 MTACS; 5 MACS; 3 Training; 1 Testing; 2 Depot level afloat assets and 1 spare
- Joint Forces: 4 FECs
  - 2 JFCOM, and 2 FORSCOM



# Notional USAF JSS AOC Locations

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# Our Investment in the JSS

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- Our best estimate for total system cost ranges from \$150M to \$280M over the development, production, integration, fielding, and sustainment from 2004 – 2014.
- Factors affecting the availability of funds
  - Army and Marine Corps success in funding the program in the current budget cycle (POM06)
  - Navy and Air Force continuing success in budgeting funds for FY06 and out
  - Availability of Operations and Maintenance funds starting in FY06



# Factors that Impact Program Cost

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- Availability of commercial and NDI products that meet many system requirements
- Commonality of hardware components with similar systems being fielded by the services
- The integrators ability to find suitable COTS solutions and suitable teaming arrangements
- The use of CLIP software for interfacing to the tactical data link networks
- Acquiring sufficient data rights so we can maintain, upgrade, and sustain the JSS either organically or by a competent 3<sup>rd</sup> party



# Potential non-US Market

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- UK is developing similar requirements and is exploring many options to satisfy their fixed site and deployable Link-16 network management needs. Discussions between the US and UK are on-going and positive.
- US has sold Link-11 and Link-16 systems to many foreign nations.
  - Beyond the 5 MIDS Nations (US, Spain, Germany, Italy, and France), the MIDS International Program Office is exploring MIDS sales to over 20 nations throughout the world.
  - Many nations with FMS cases with the US for data link systems have expressed a desire for network design tools, Link-16 frequency and network management tools, and fixed site network operating equipment.
- The Joint Multi-TDL School at FORSCOM (Atlanta) teaches foreign nation's military and civilian users of Link-11 and Link-16 systems
  - JMTS will have 2 JSS suites dedicated for training JICOs





# Summary

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- We are seeking capable competitors for the JSS acquisition program who can bring a range of skills and innovative approaches to achieving our technical and programmatic requirements
- We are seeking ideas and suggestions from companies over the next 2 months to create a well-formed acquisition package and RFP that achieves the government's needs as well as consider the market and business environment



# Acronyms

**USAF ESC/NI**

ACAT Acquisition Category  
 ACC Air Combat Command  
 AOC Air Operations Center  
 ASP Acquisition Strategy Panel  
 C2ERA Command and Control Enterprise Reference  
 Architecture  
 C2P Command and Control Processor  
 CAOC Combined Air Operations Center  
 CCC Common Core Capability  
 CDLMS Common Data Link Management  
 CJCSM Chairman of the Joint Chiefs of Staff  
 CLIP Common Link Integration Processing  
 COTS Commercial Off the Shelf  
 CRD CAPSTONE Requirements Document  
 CTP Common Tactical Picture  
 DoD Department of Defense  
 DUST Drive Up Simulated Test Bed  
 EPLRS Enhanced Position Location Reporting  
 ESC Electronic Systems Center  
 FEC Full Expeditionary Capability  
 FMS Foreign Military Sales  
 FOC Full Operational Capability  
 FORSCOM Forces Command  
 FY Fiscal Year  
 GDN Ground Data Network  
 GIG Global Information Grid  
 GOTS Government Off the Shelf  
 JDR Joint Data Repository  
 JFCOM Joint Forces Command  
 JICO Joint Interface Control Officer  
 JICC-D Joint Interface Control Cell, Deployable

System  
Manual

System

JNMS Joint Network Management System  
 JPN Joint Planning Network  
 JSS JICO Support System  
 JTRS Joint Tactical Radio System  
 JU JTIDS Unit  
 IBS Intelligence Broadcast Service  
 I-JSS Interim JICO Support System  
 IOC Interim Operational Capability  
 IP Internet Protocol  
 iMTDS Improved Multi-TDL Display System  
 LMC Link Monitoring Capability  
 LMS Link Monitoring System  
 LVT Low Volume Terminal  
 MARCORSYSCOM Marine Corps Systems  
 Command  
 MIDS Multifunctional Information Distribution  
 System  
 MTN Multi-TDL Network  
 NCTSI Navy Center for Tactical Systems  
 Interoperability  
 NDI Non-Development Item  
 OPFAC Operational Facility  
 ORD Operational Requirements Document  
 PEO Program Executive Officer  
 POM Program Objective Memorandum  
 PU Participating Unit  
 RFP Request for Proposal  
 SIAP Single Integrated Air Picture  
 SIPRNet Secure Internet Protocol Routing Network  
 SPAWAR Space and Naval Warfare Systems  
 Command  
 TDL Tactical Data Link  
 TOC Tactical Operations Center  
 TRD Technical Requirements Document